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November 23, 2001

Ms. Magalie Salas, Secretary
Federal Communications Commission
445 12th Street SW
Washington DC 20554

**Re: ET Docket No. 98-153 -- Revision of Part 15 of the Commission's Rules Regarding
Ultra-Wideband Transmission Systems
*Ex Parte Communication***

Dear Ms. Salas:

Pursuant to Section 1.1206(a)(2) of the Commission's Rules, on behalf of XtremeSpectrum, Inc., I am filing this letter electronically to report an oral ex parte communication in the above-referenced proceeding.¹

On Wednesday, November 21, Martin Rofheart of XtremeSpectrum, Inc., Michele Farquhar, Esq., of Hogan & Hartson, L.L.P., and I met with Julius P. Knapp and Michael J. Marcus of the Office of Engineering and Technology.

Our presentation responded to indications that OET is considering restrictions on peer-to-peer operations as a means of limiting ultra-wideband communications systems to indoors, to address concerns about interference into certain Government receivers.

In addition to reiterating positions XtremeSpectrum has previously stated in this proceeding, we emphasized the points set out below.

¹ XtremeSpectrum, with 67 employees, conducts research in ultra-wideband communications systems as its sole business. XtremeSpectrum intends to become a ultra-wideband communications manufacturer once the Commission authorizes certification of such systems. XtremeSpectrum takes no position on ultra-wideband radar applications.

1. A Peer-to-Peer Ban is Bad for Consumers and Unnecessary to Protect Other Users.

(a) *A peer-to-peer ban would deprive consumers of valuable applications.*

A peer-to-peer ban on ultra-wideband communications would needlessly deny consumers many of the most attractive applications of ultra-wideband technology.² Eliminating peer-to-peer operations would rule out such everyday applications as synchronizing a Palm-type PDA with a laptop, downloading a digital camera to a laptop or PDA, or even exchanging business card information between PDAs. Consumers would find such restrictions arbitrary and frustrating, which in turn would make ultra-wideband less attractive to consumer-device manufacturers.

(b) *A peer-to-peer ban is unnecessary.* XtremeSpectrum has submitted detailed technical analyses that show a properly designed ultra-wideband system does not cause any interference to other users even when operated outdoors, and even when elevated 30 meters above ground level.³ A peer-to-peer ban is wholly unnecessary to protect other users.

2. The Commission Should Permit Peer-to-Peer Operations Under Appropriate Constraints.

(a) *No outdoor infrastructure.* In addition to the measures discussed below, XtremeSpectrum supports a total ban on outdoor ultra-wideband infrastructure. This will eliminate nearly all outdoor communication, and in practice will allow only brief, incidental exchanges at ground level (such as transmission of business card information at a sidewalk café).

(b) *Reduced emissions limits.* If the Commission continues to believe outdoor peer-to-peer operation is a potential source of interference, it should at least give manufacturers the option of providing peer-to-peer at reduced emissions levels. The reduced levels are intended only to protect against occasional, casual outdoor use, and therefore should be calculated to give approximately the same level of protection as indoor operation.

We understand that NTIA is evaluating the following emissions mask for all ultra-wideband communications, including outdoor use:

² For details, see our ex parte filing of October 22, 2001.

³ See our ex parte filings of November 14 and 15, 2001. With specific regard to GPS, XtremeSpectrum has stated it will not oppose emissions limits in the GPS band at 35 dB below Section 15.209(a) levels, *plus* an additional 10 dB cut for spectral lines. Ex parte filing of September 10, 2001.

960-1610 MHz:	34 dB below Sec. 15.209(a) levels
1610-3100 MHz:	16-18 dB below Sec. 15.209(a) levels
3100-4200 MHz:	10 dB below Sec. 15.209(a) levels
above 4200 MHz:	Sec. 15.209(a) levels

XtremeSpectrum will not oppose these levels for peer-to-peer operation. We emphasize, however, that these numbers are more stringent than necessary, and urge the Commission to adopt the most flexible limits possible, consistent with fully protecting other users. We note particularly that the record does not justify limits tighter than Sec. 15.209(a) values in the 3100-4200 MHz band. Details appear in our ex parte filing of November 14, 2001.

A product complying with these rules will truly be flea-powered, with a maximum range of just a few meters. Its emissions ceiling will be far lower than for any other device anywhere in the Commission's Rules.

XtremeSpectrum will welcome the opportunity to respond to other proposed masks the Commission may have under consideration.

(c) ***Indoor operation only.*** As an alternative to a reduced emissions mask, manufacturers should have the option of limiting peer-to-peer operations to cases where the communicating devices are indoors. But the Rules should not require any particular mechanism to determine whether a device is indoors. Instead, the Rules should simply require the applicant to satisfy the Commission that its mechanism is adequate, as part of the certification process. We also welcome rule provisions that pre-approve certain mechanisms, so long as they are not exclusive.

(d) ***No automatic peer-to-peer operation.*** As an added precaution, XtremeSpectrum will support a rule provision that prohibits automatic peer-to-peer operation by requiring the user to affirmatively initiate the communication, as by pressing a button.

3. Conclusion

Peer-to-peer operation is necessary to deliver the full promise of consumer ultra-wideband communications. XtremeSpectrum has shown in detail that peer-to-peer operations, even outdoors, will not interfere with other users. In the interests of a speedy resolution, however, XtremeSpectrum will support rules that either limit emissions for peer-to-peer operations or, *at the manufacturer's option*, ban peer-to-peer communications entirely between outdoor devices. In addition, XtremeSpectrum will not oppose a rule that requires affirmative user intervention to initiate peer-to-peer communications.

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This proceeding does not set a workable precedent. The present rulemaking has generated more than the usual degree of controversy and opposition. The Commission may, for that reason, choose to set technical limits more conservative than are strictly justified by the record. In that spirit, XtremeSpectrum has said it does not oppose very stringent emissions limits in the GPS band and, if necessary, would accept limits in the 3100-4200 MHz band whose technical rationale has not been well established. But, in doing so, we ask both the Commission and the other parties to acknowledge the unusual character of the proceeding. Given the myriad participants and their sometimes conflicting concerns, the technical rules ultimately adopted here may result in part from compromise and negotiation, as well as from sound technical analysis. We hope the Commission will acknowledge as much, and make clear that numerical levels in these rules do not necessarily have precedential value for technical decisions in other proceedings.

If there are any questions about this filing, please call me at the number above.

Respectfully submitted,

Mitchell Lazarus
Counsel for XtremeSpectrum, Inc.

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